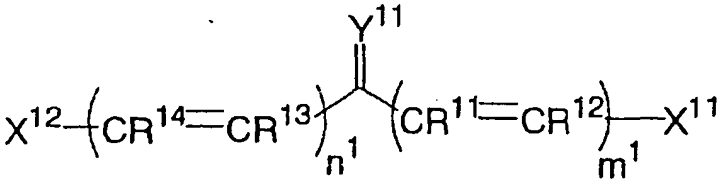
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

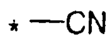
1-11. (canceled).

12. (currently amended): A method for inducing a non-resonant two-photon absorption, which comprises irradiating the compound represented by the following formula (1) or (3) ~~as described in claim 1~~ with laser beams having a wavelength longer than the linear absorption band of the compound to induce a two-photon absorption:

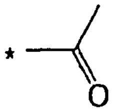


$$X^{12}-\left(CR^{14}=CR^{13}\right)_{n^1}-C(=Y^{11})-\left(CR^{11}=CR^{12}\right)_{m^1}-X^{11} \qquad (1)$$

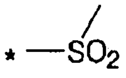
wherein R^{11}, R^{12}, R^{13} and R^{14} each independently represents a hydrogen atom or a substituent, and some of R^{11}, R^{12}, R^{13} and R^{14} may be bonded to each other to form a ring; m^1 and n^1 each represents an integer of from 0 to 4, and when m^1 and n^1 each represents 2 or more, a plurality of R^{11}, R^{12}, R^{13} and R^{14} may be the same or different; X^{11} and X^{12}, which may be the same or different, each represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group; Y^{11} represents an atomic group containing at least one of partial structures represented by the following formulae (2-1) to (2-6):



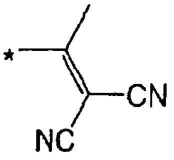
2-1



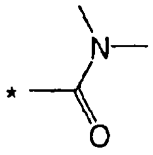
2-2



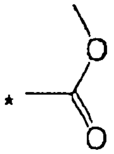
2-3



2-4

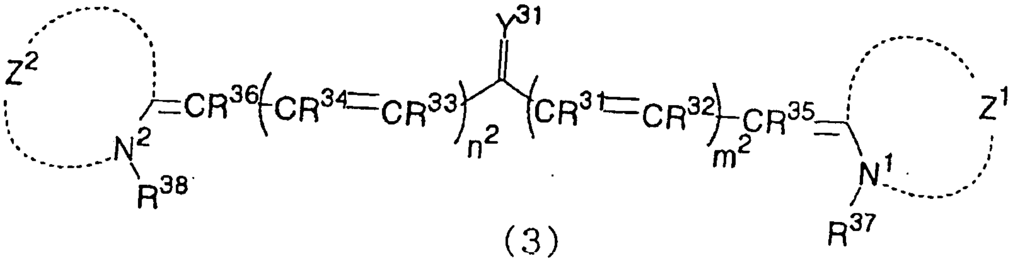


2-5



2-6

wherein * represents the bonding position in Y^{11}, when Y^{11} contains two of partial structures represented by formulae (2-1) to (2-6), the two partial structures may be different from each other, and may be bonded to form a ring, and when Y^{11} contains one of partial structure represented by formulae (2-1) to (2-6), other necessary atom or atomic group may be arbitrary;

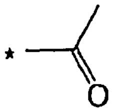


(3)

wherein R^{31}, R^{32}, R^{33}, R^{34}, R^{35} and R^{36} each independently represents a hydrogen atom or a substituent, and some of R^{31}, R^{32}, R^{33}, R^{34}, R^{35} and R^{36} may be bonded to each other to form a ring; m^2 and n^2 each represents an integer of from 1 to 4, and when m^2 and n^2 each represents 2 or more, a plurality of R^{31}, R^{32}, R^{33} and R^{34} may be the same or different; R^{37} and R^{38} each represents a hydrogen atom, an alkyl group, an alkenyl group, an aryl group, or a heterocyclic group; Z^1 and Z^2 each represents an atomic group to form a 5- or 6-membered ring; Y^{31} represents an oxygen atom, or an atomic group containing at least one of partial structures represented by the following formulas (2-1) to (2-6):

$*{-}\mathrm{CN}$

2-1



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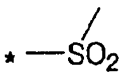
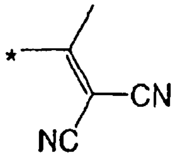
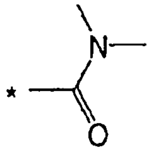


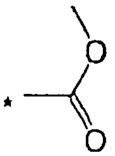
2-3



2-4



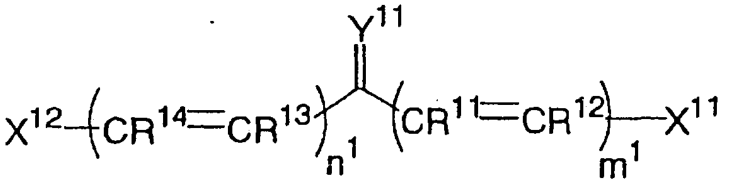
2-5



2-6

wherein * represents the bonding position in Y^{31}, when Y^{31} contains two of partial structures represented by formulae (2-1) to (2-6), the two partial structures may be different from each other, and may be bonded to form a ring, and when Y^{31} contains one of partial structure represented by formulae (2-1) to (2-6), other necessary atom or atomic group may be arbitrary.

13. (currently amended): A method for generating an emission of non-resonant two-photon, which comprises irradiating the compound represented by the following formula (1) or (3) ~~as described in claim 1~~ with laser beams having a wavelength longer than the linear absorption band of the compound to induce non-resonant two-photon absorption and generate an emission:

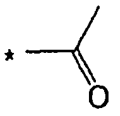


$$X^{12}\left(CR^{14}=CR^{13}\right)_{n^1}C(=Y^{11})\left(CR^{11}=CR^{12}\right)_{m^1}X^{11} \qquad (1)$$

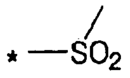
wherein R^{11}, R^{12}, R^{13} and R^{14} each independently represents a hydrogen atom or a substituent, and some of R^{11}, R^{12}, R^{13} and R^{14} may be bonded to each other to form a ring; m^1 and n^1 each represents an integer of from 0 to 4, and when m^1 and n^1 each represents 2 or more, a plurality of R^{11}, R^{12}, R^{13} and R^{14} may be the same or different; X^{11} and X^{12}, which may be the same or different, each represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group; Y^{11} represents an atomic group containing at least one of partial structures represented by the following formulae (2-1) to (2-6):

$*-CN$

2-1



2-2



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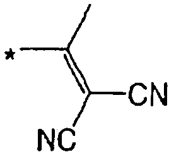

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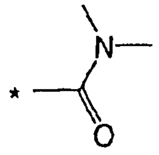

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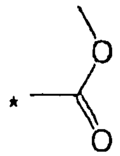
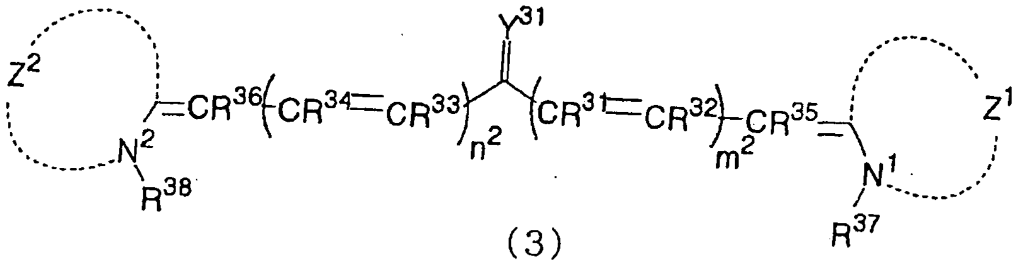


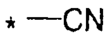
2-6

wherein * represents the bonding position in Y^{11}, when Y^{11} contains two of partial structures represented by formulae (2-1) to (2-6), the two partial structures may be different from each other, and may be bonded to form a ring, and when Y^{11} contains one of partial structure represented by formulae (2-1) to (2-6), other necessary atom or atomic group may be arbitrary;

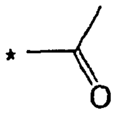


(3)

wherein R^{31}, R^{32}, R^{33}, R^{34}, R^{35} and R^{36} each independently represents a hydrogen atom or a substituent, and some of R^{31}, R^{32}, R^{33}, R^{34}, R^{35} and R^{36} may be bonded to each other to form a ring; m^2 and n^2 each represents an integer of from 1 to 4, and when m^2 and n^2 each represents 2 or more, a plurality of R^{31}, R^{32}, R^{33} and R^{34} may be the same or different; R^{37} and R^{38} each represents a hydrogen atom, an alkyl group, an alkenyl group, an aryl group, or a heterocyclic group; Z^1 and Z^2 each represents an atomic group to form a 5- or 6-membered ring; Y^{31} represents an oxygen atom, or an atomic group containing at least one of partial structures represented by the following formulas (2-1) to (2-6):



2-1



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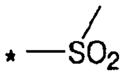

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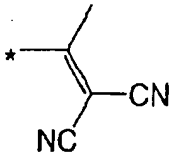

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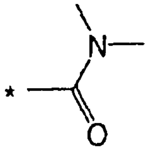

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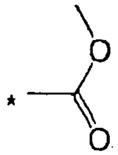

2-6

wherein * represents the bonding position in Y^{31}, when Y^{31} contains two of partial structures represented by formulae (2-1) to (2-6), the two partial structures may be different from each other, and may be bonded to form a ring, and when Y^{31} contains one of partial structure represented by formulae (2-1) to (2-6), other necessary atom or atomic group may be arbitrary.

14-17. (canceled).